

IN THE DRAWINGS:

The attached sheets of drawings include changes to Figures 5A, 10A, and 10B. The first attached sheet including Figures 5A and 5B replaces the original sheet including Figures 5A and 5B. “Application Memory Space 225” in Figure 5A has been changed to “Application Memory Space 227” to match the description in paragraph [0061] of the specification. The second attached sheet including Figures 10A and 10B replaces the original sheet including Figures 10A and 10B. Figures 10A and 10B have each been amended to include text labels.

Attachment: Replacement Sheets

REMARKS

The following is intended as a full and complete response to the Office Action dated October 9, 2007. Claims 1-31 were examined. Claims 1-31 are rejected under 35 U.S.C. § 102(b) as being anticipated by each of Aviani (6,976,085), Hayes (U.S. 2003/0158906), and Levy-Abegnoli (7,272,653). These rejections are respectfully traversed. Claims 1-31 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-27 of co-pending Application No. 10/731,176, claims 1-31 of co-pending Application No. 10/731,383, and claims 1-28 of co-pending Application No. 10/731,602. The rejection for obviousness-type double patenting is respectfully requested to be held in abeyance until a final determination of the allowable subject matter in the application is made.

By way of this reply, Applicants are amending independent claims 1, 12, and 18, and canceling claims 19, 23, and 24. Claim 1, as amended, recites (i) a dedicated hardware offload unit that offloads TCP connection processing from a CPU, (ii) designating a first portion of a system memory within a first computing system for storage of frame payload data in legacy buffers, wherein the first portion of the system memory is allocated to a software driver configured to communicate between a dedicated hardware offload unit and a TCP stack, and (iii) designating a second portion of the system memory for storage of frame payload data in user buffers, wherein the second portion of the system memory is allocated to an application program. Claims 3, 9, and 11 are amended to conform to amended claim 1. Aviani does not teach or suggest the limitations recited in amended claim 1.

Aviani discloses a data communications device (a switch or router) that intercepts communications between two computing devices and inserts data into packets, altering the size of the packets (see the Abstract of Aviani). In contrast, the dedicated hardware offload unit recited in amended claim 1 performs TCP connection processing to offload the CPU that is also within the first computing system. The data communications device of Aviani does not offload connection processing from processor 113, first computerized device 110, or second computerized device 140.

Aviani also fails to teach or suggest the system memory limitations recited in amended claim 1. In Figure 3 Aviani shows memory 112, but does not teach or suggest that frame payload data is stored in the memory. In particular, Aviani fails to teach or suggest that the memory stores anything other than the insertion manager application. Therefore, claim 1 and its dependent claims, claims 2-11, are patentable over Aviani.

Hayes also fails to teach or suggest the limitations recited in amended claim 1. In Figure 7 Hayes shows memory 108, but does not teach or suggest that frame payload data is stored in the memory. In particular, Hayes fails to teach or suggest that portions of the memory are allocated to a software driver and an application program for storage of the frame payload data. Therefore, claim 1 and its dependent claims, claims 2-11, are patentable over Hayes.

Levy-Abegnoli discloses system for load balancing TCP communications for a cluster of servers that uses a scoring function to determine an owner and back up owner for each TCP connection. Nowhere does Levy-Abegnoli teach or suggest any use of system memory, allocation of system memory, or storage of frame payload data. Therefore, claim 1 and its dependent claims, claims 2-11, are patentable over Levy-Abegnoli.

Claim 12 is amended to include limitations similar to those discussed above in connection with allowable amended claim 1, and therefore is in condition for allowance for at least the same reasons as amended claim 1. Claims 14 and 15 are amended to conform to amended claim 12. Since claims 13-17 depend from allowable claim 12, these claims also are in condition for allowance.


Claim 18 is amended to recite limitations of (i) a dedicated hardware offload unit to offload the TCP connection processing from the CPU, (ii) a first portion of a system memory that is allocated to a software driver configured to communicate between the dedicated hardware offload unit and the TCP stack and designated for storage of frame payload data in legacy buffers, and (iii) a second portion of the system memory that is allocated to the application program for storage of frame payload data in user buffers. These limitations are similar to those discussed above in connection with allowable amended claim 1, and therefore amended claim 18 is in condition for allowance for at least the same reasons as amended claim 1. Claims 20 and 25-27 are amended to

conform to amended claim 18. Since claims 20-22 and 25-31 depend from allowable claim 18, these claims also are in condition for allowance.

CONCLUSION

Based on the above remarks, Applicants believe that they have overcome all of the rejections set forth in the Office Action mailed on October 9, 2007 and that the pending claims are in condition for allowance. If the Examiner has any questions, please contact the Applicant's undersigned representative at the number provided below.

Respectfully submitted,



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